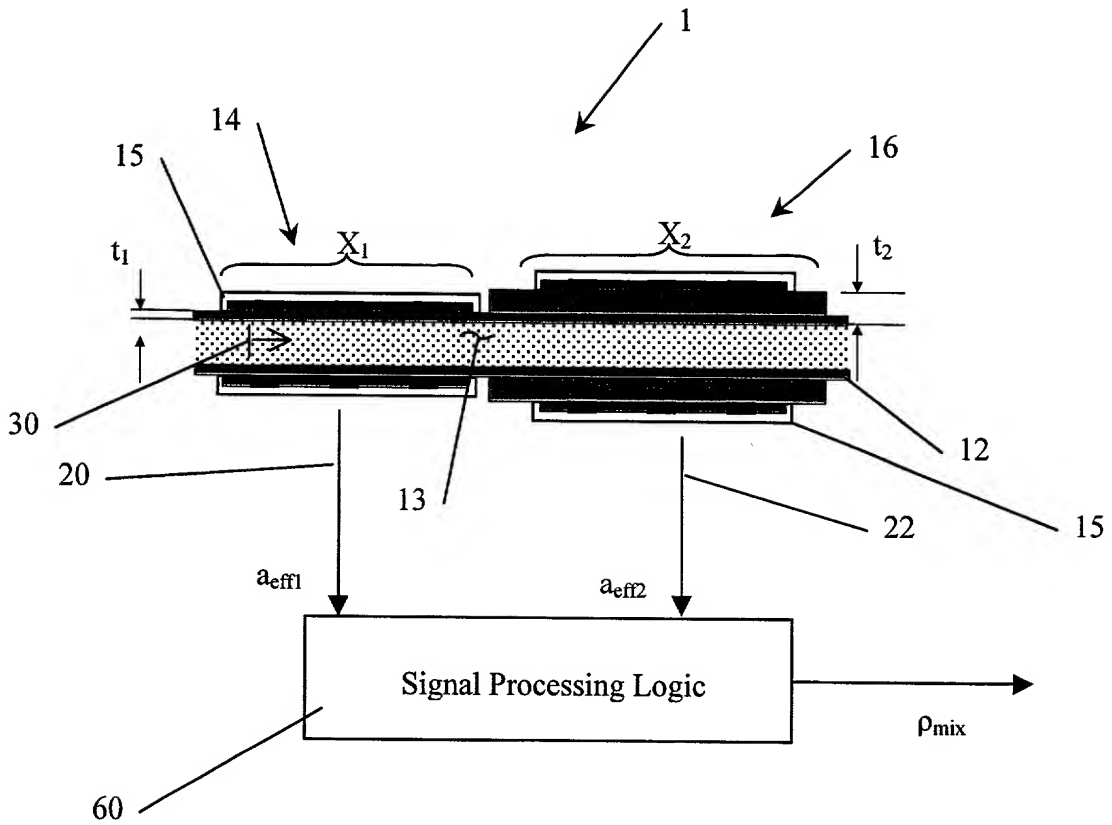


**Figure 1**

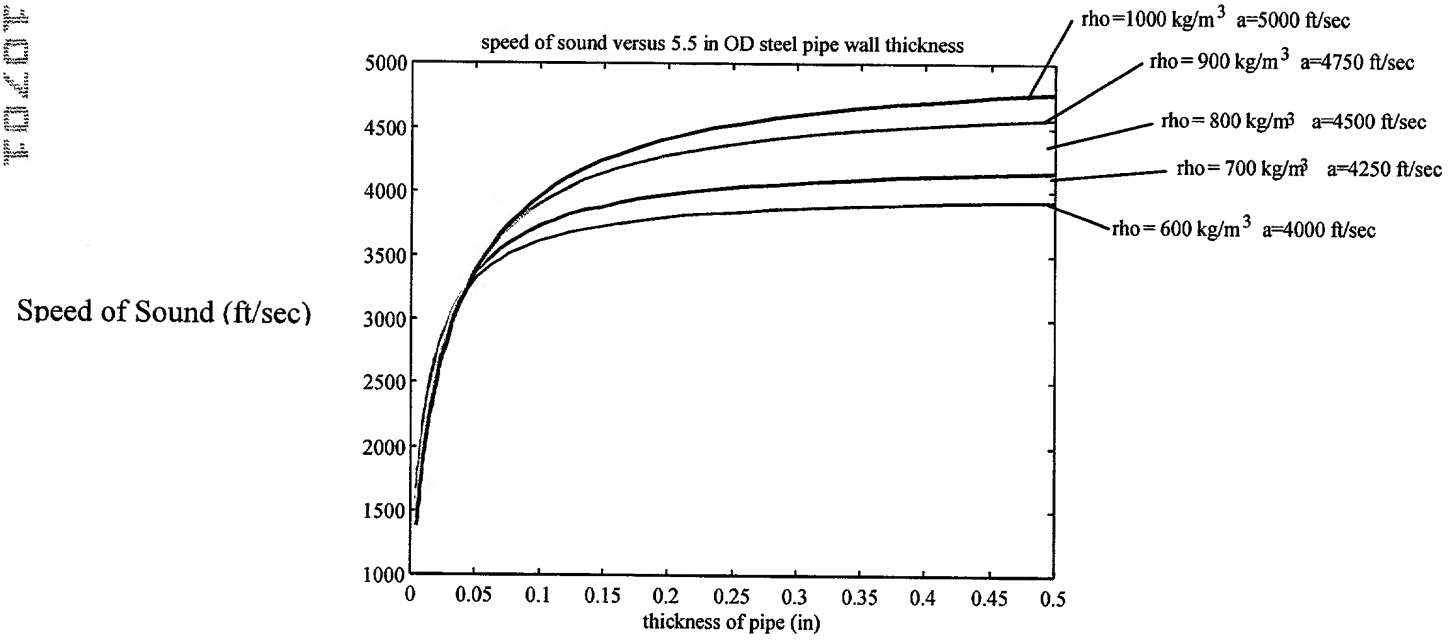


**Figure 2**

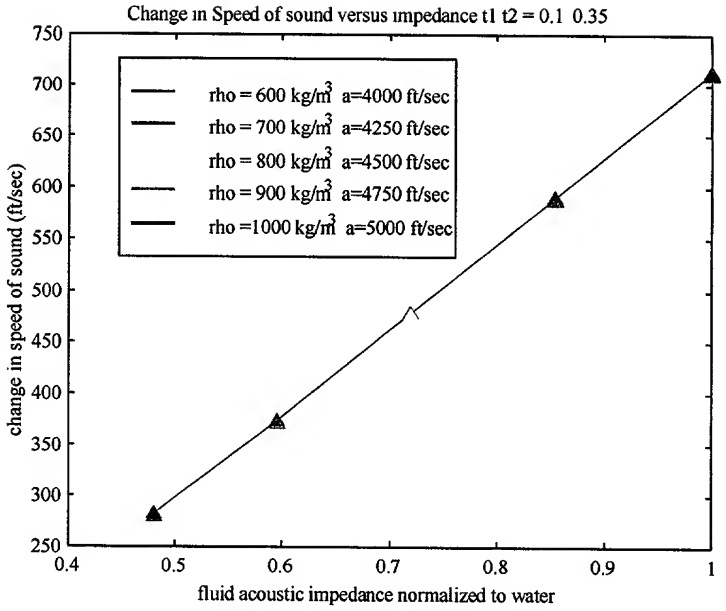


**Figure 3**

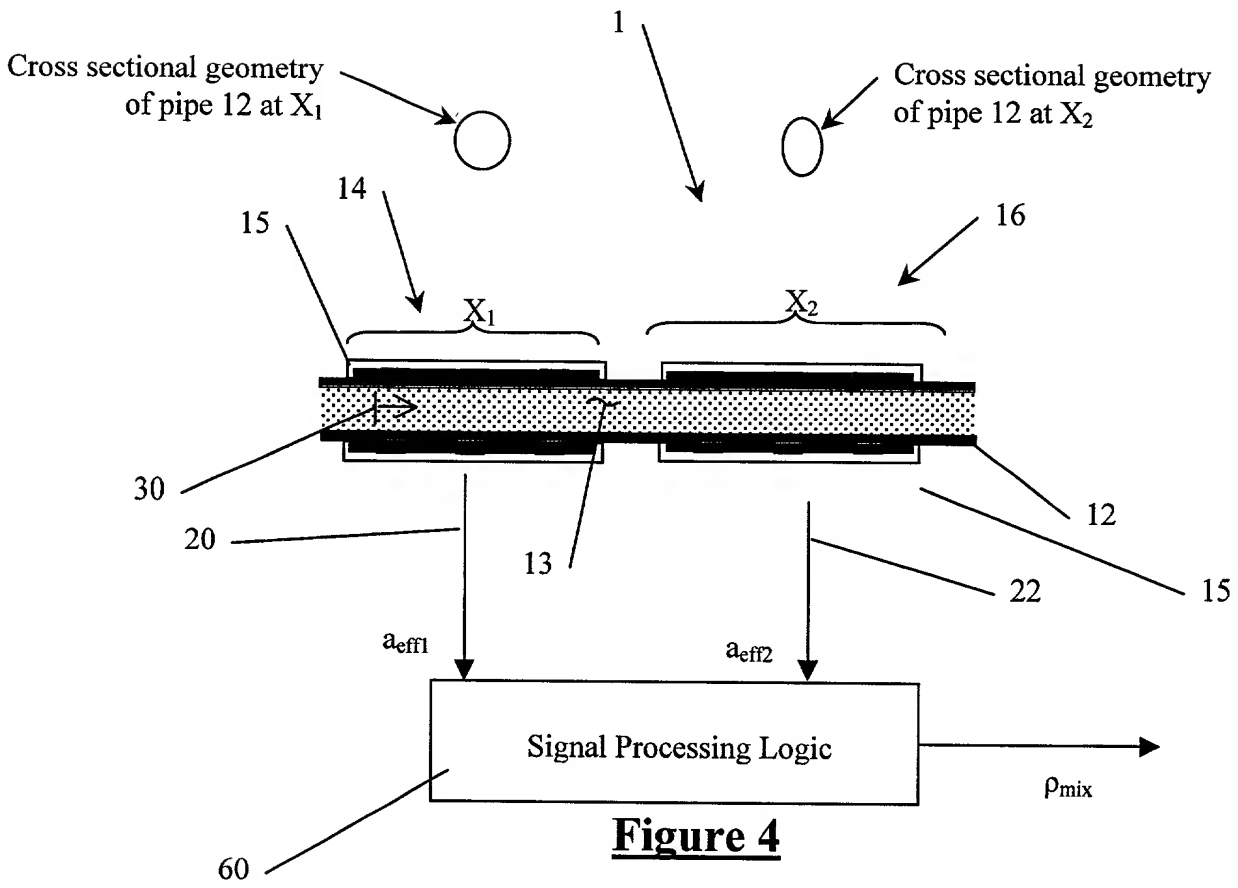


**Figure 4**

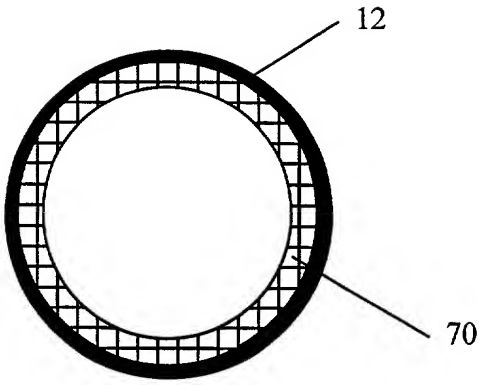


**Figure 5**

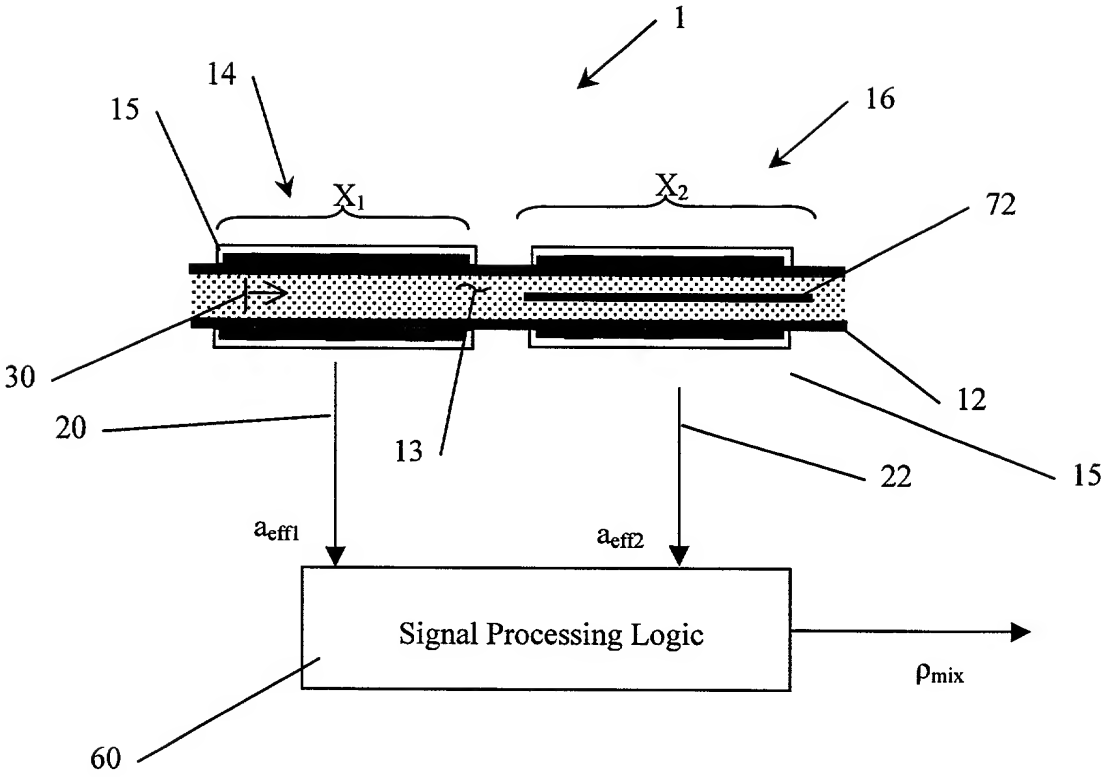


**Figure 6**

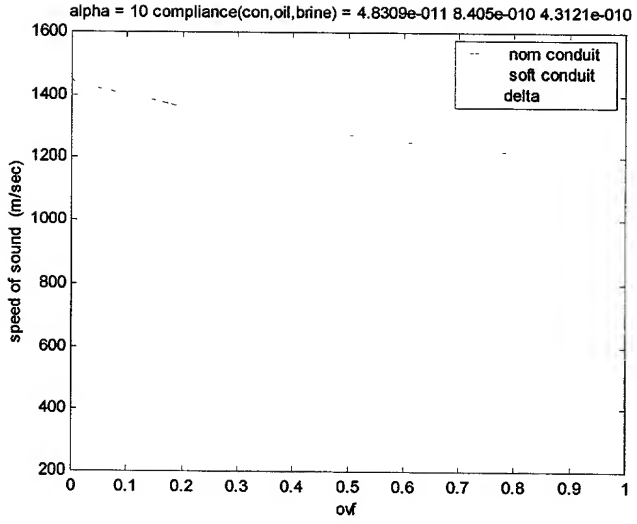


**Figure 7**

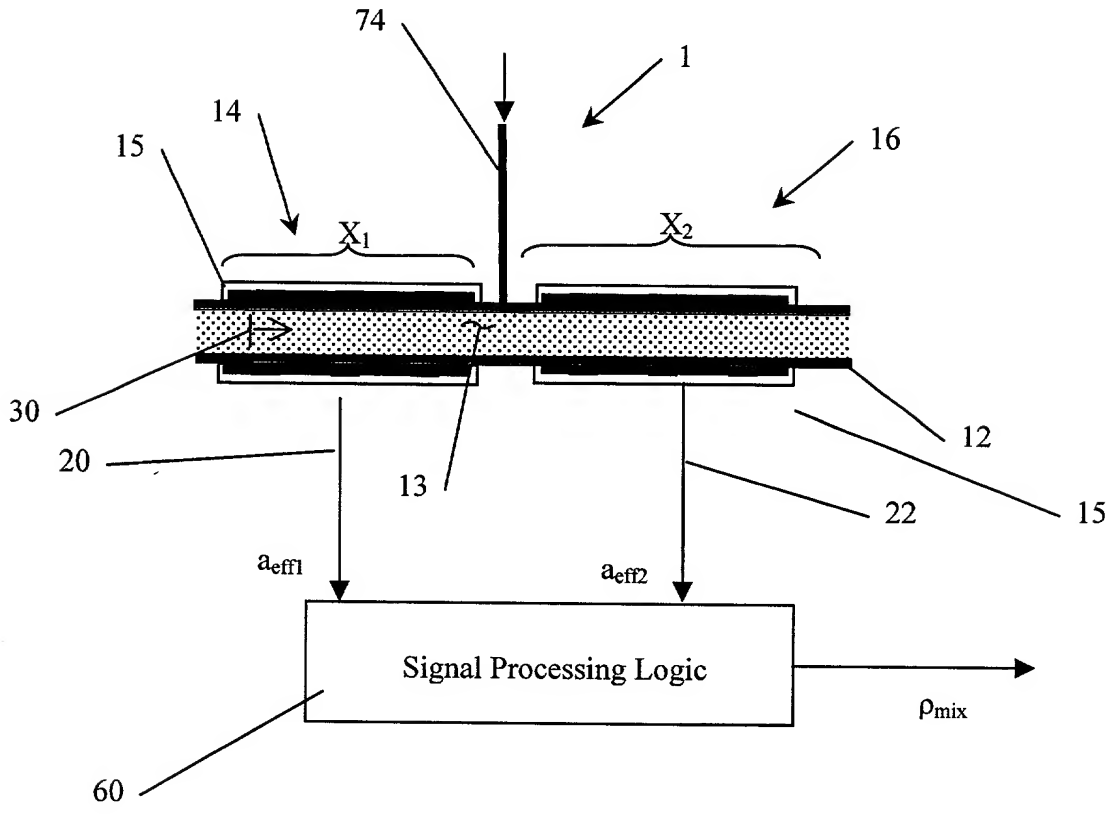


**Figure 8**

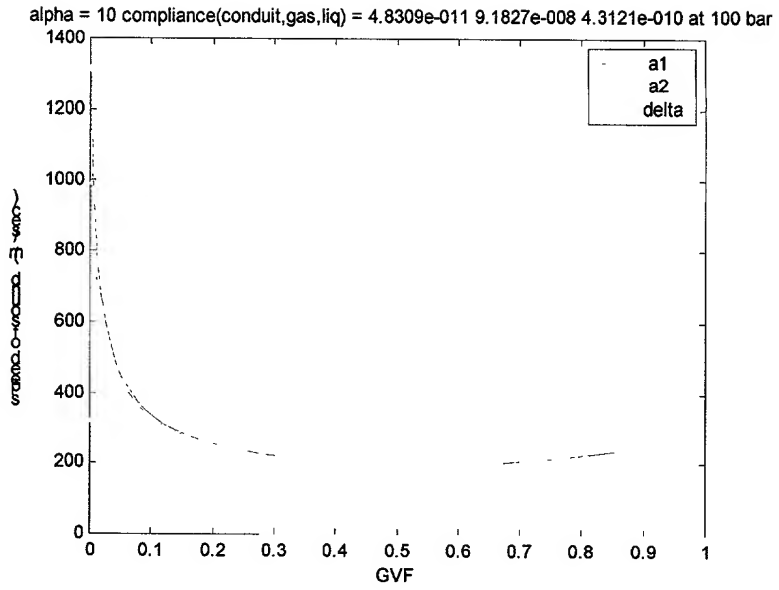
alpha = 10 compliance(conduit,gas,liq) = 4.8309e-011 9.1827e-008 4.3121e-010 at 100 bar
a1
a2
delta
1400
1200
1000
800
600
400
200
0
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
GVF

**Figure 9**